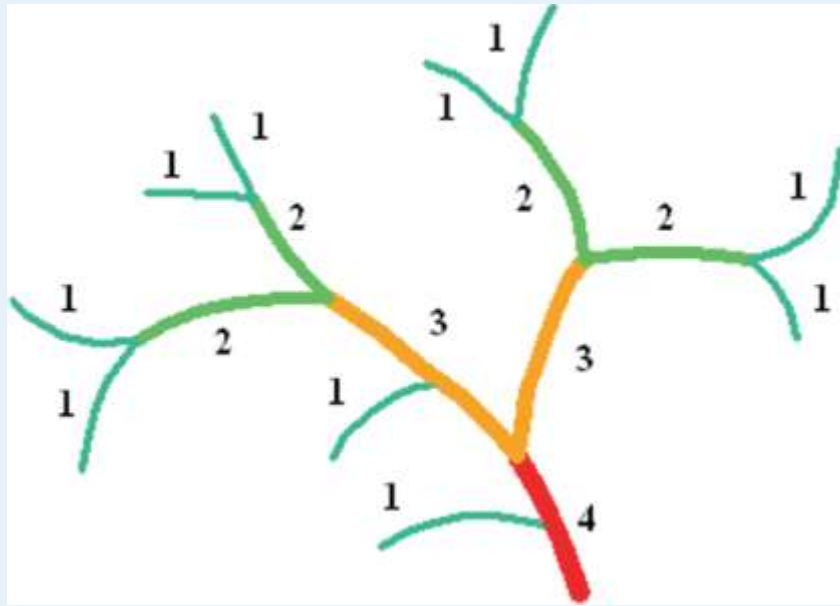


Fluvial-River System

Stream order

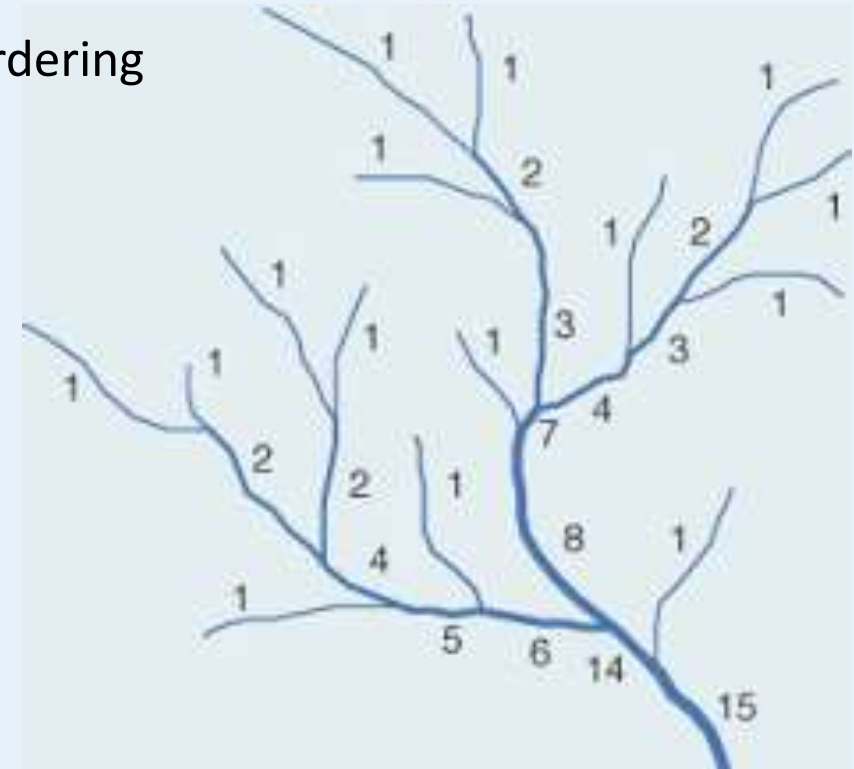
1. Strahler stream ordering



Rivers form branching **networks** of channels which drain runoff.

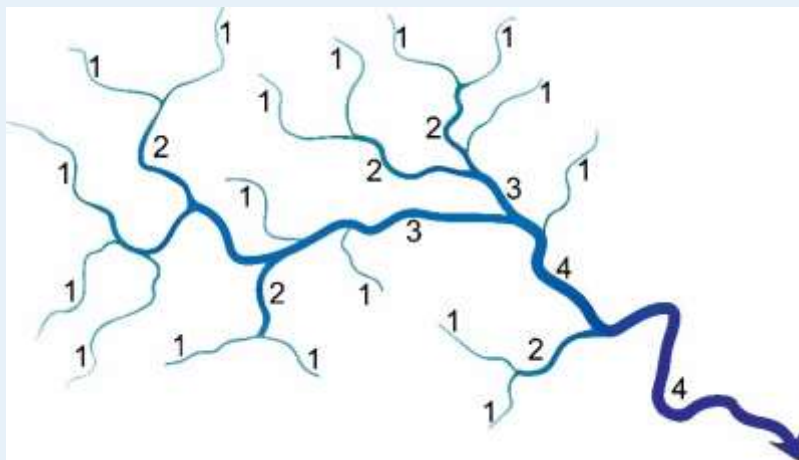
Strahler's method classifies the hierarchy of streams in a catchment by regarding each stream segment of a river network as a branch in a tree, with the next segment downstream as its parent. The smallest, or primary, tributaries are assigned the order of "1" and where two first-order streams come together, they form a second-order stream. At the confluence of two second-order streams, they form a third-order stream.

1. Shreve stream ordering



http://www.gitta.info/Accessibiliti/en/html/StructPropNetw_earningObject5.html

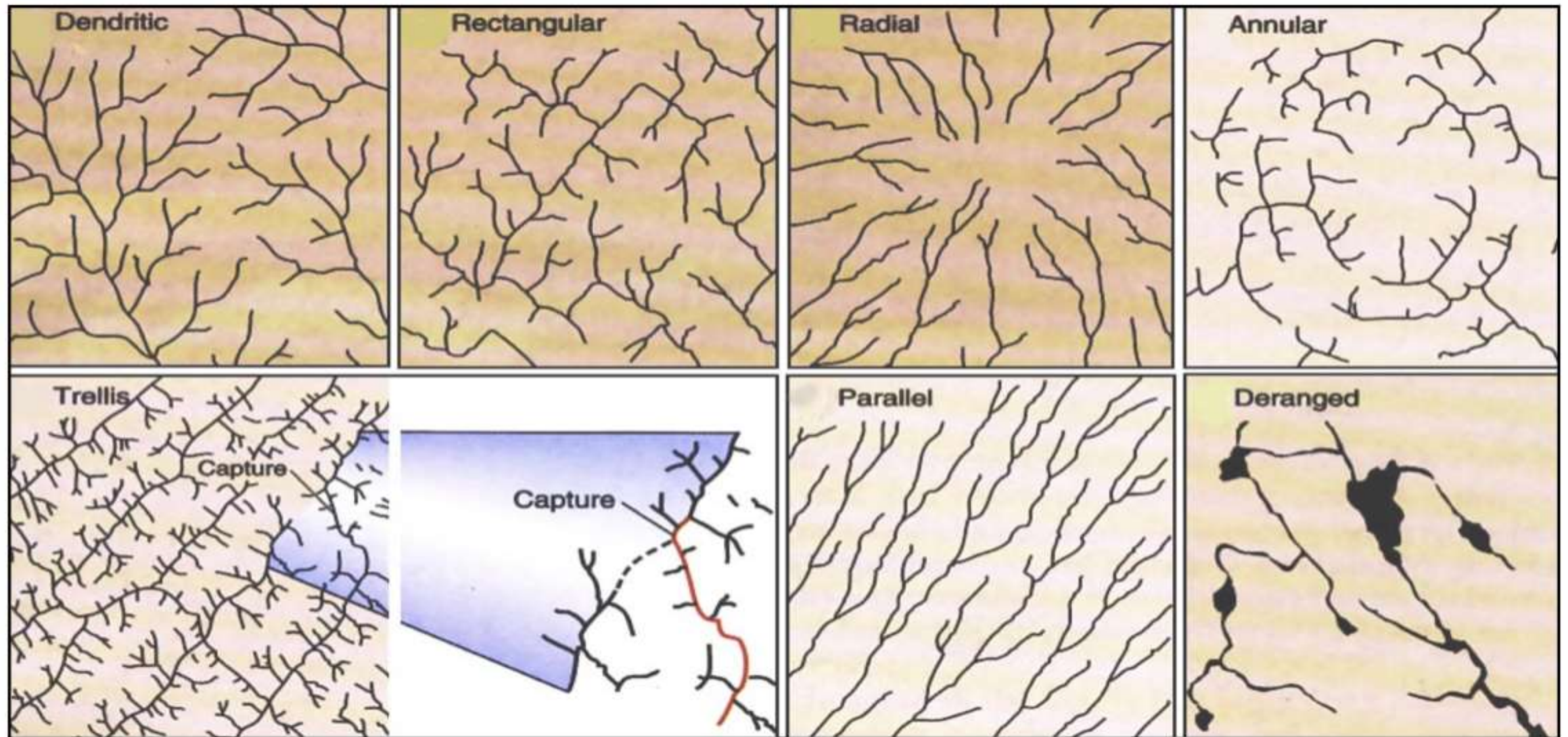
https://link.springer.com/chapter/10.1007/978-3-030-79634-1_18



<https://riojournal.com/article/33400/zoom/fig/4791213/>

Drainage network patterns

Drainage patterns controlled by **structure or slope** (from Summerfield, 1991).



Drainage network patterns

Dendritic drainage pattern (**Dendritik**)



https://commons.wikimedia.org/wiki/File:Dendritic_Drainage_pattern.jpg

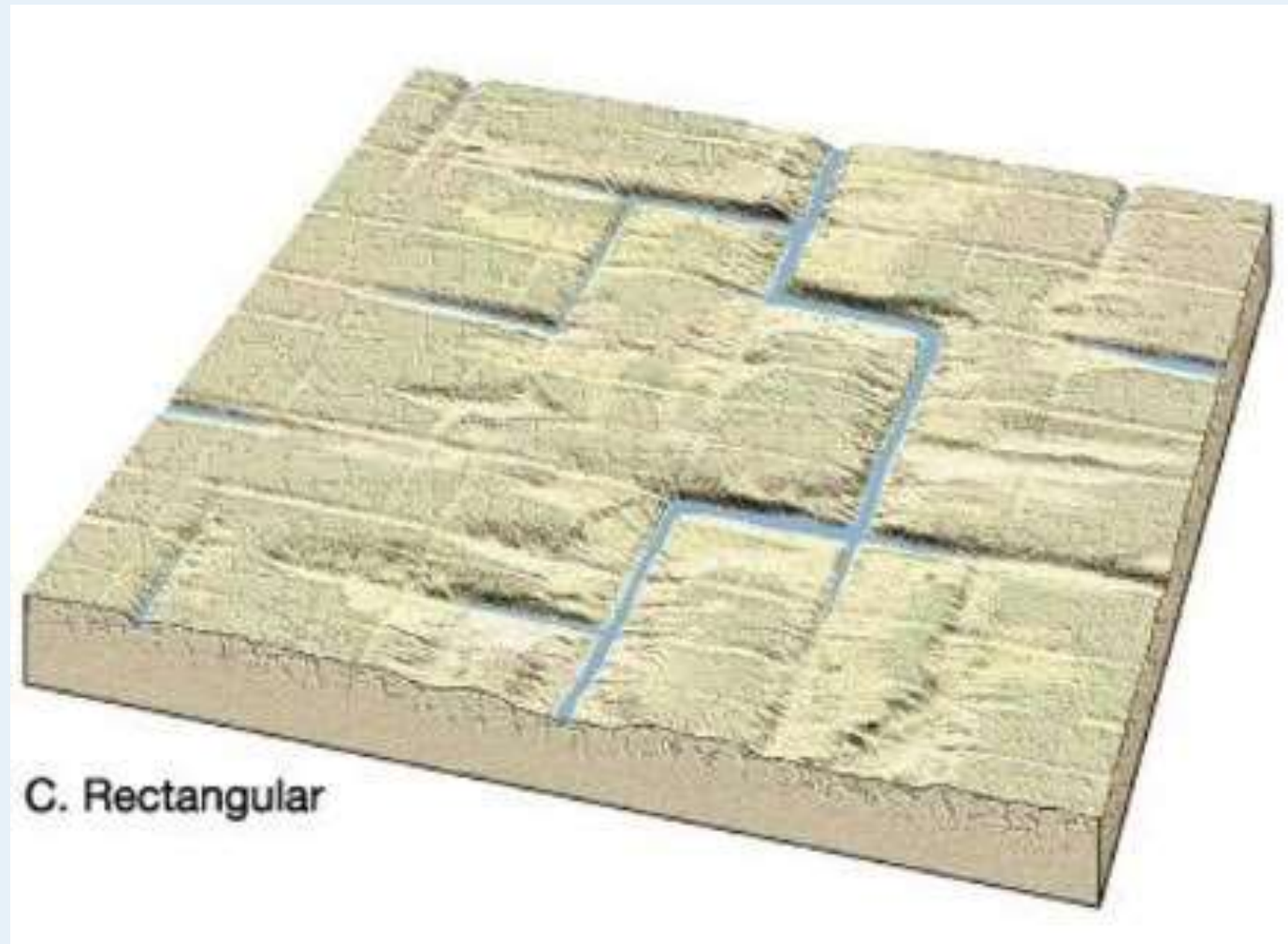
There are no strong geological controls



<https://tr.pinterest.com/pin/339951471842846965/>

Drainage network patterns

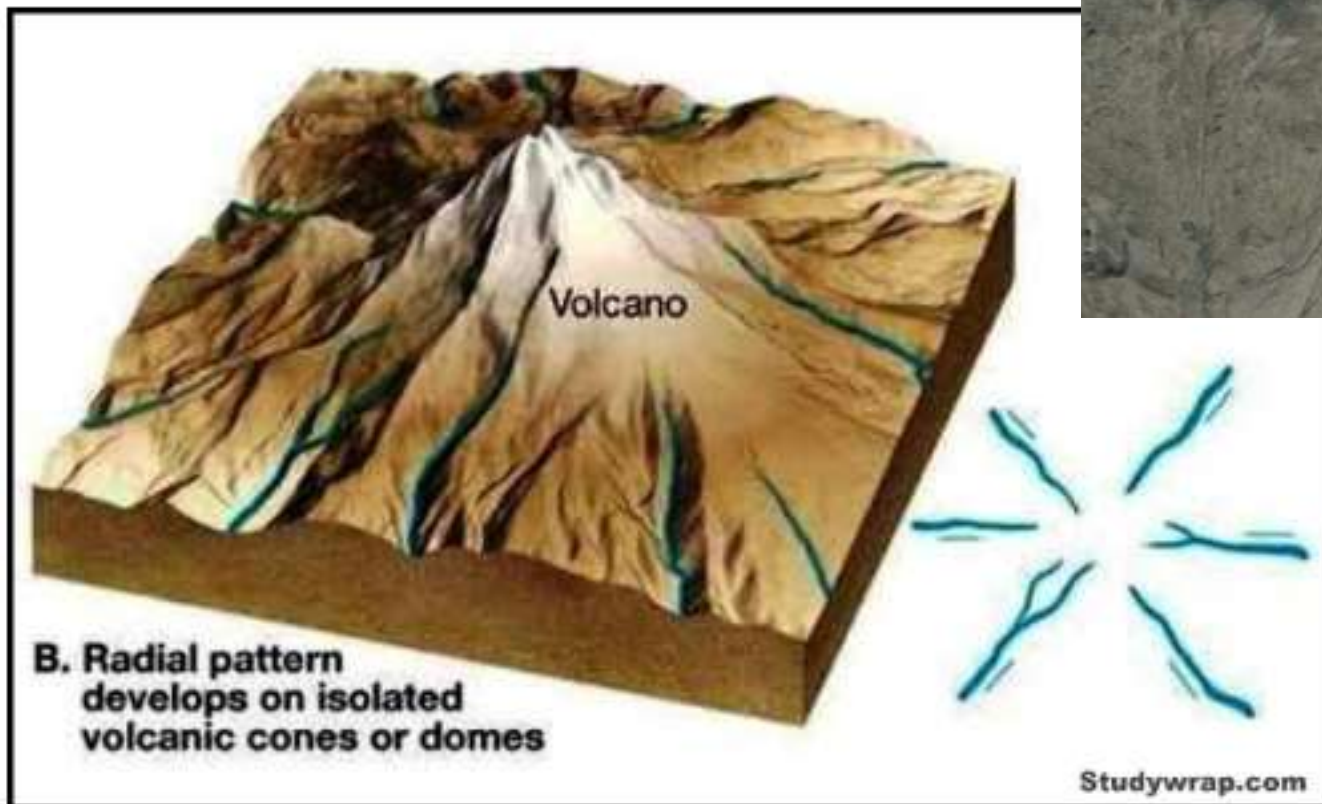
Rectangular drainage pattern (**Dikdörtgenimsi**)



<https://www.pmfias.com/drainage-patterns-discordant-drainage-patterns-concordant-drainage-patterns-drainage-basin-drainage-divide-river-basin-watershed/>

Drainage network patterns

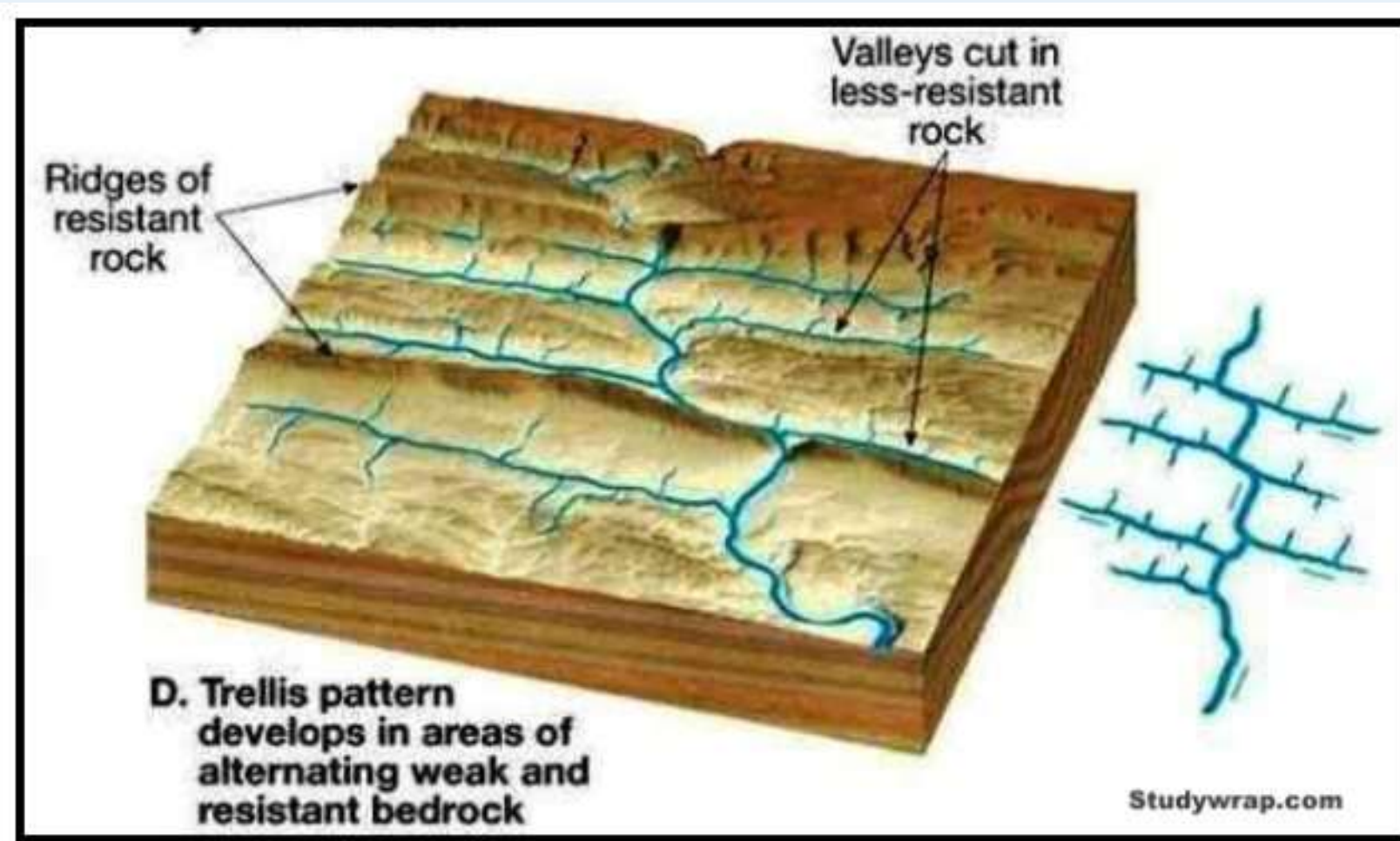
Radial drainage pattern (**Radyal**)



Radial drainage develops on uplifted domes and volcanoes.

Drainage network patterns

Trellis drainage pattern (Kafesli)

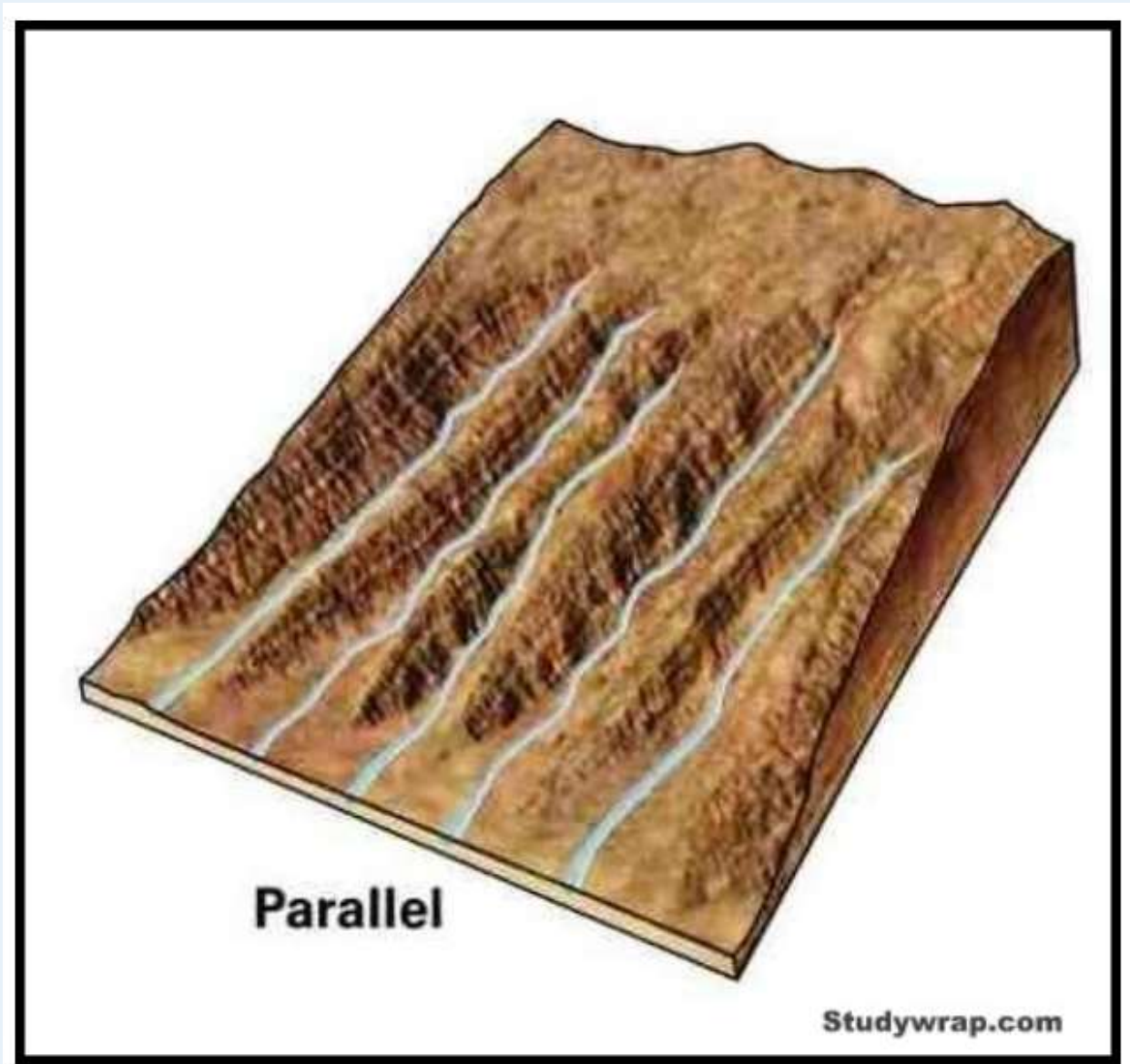


Trellis patterns develop where sedimentary rocks are folded or tilted

<https://studywrap.com/drainage-system-types-of-drainage-patterns/x>

Drainage network patterns

Parallel drainage pattern (**Paralel**)

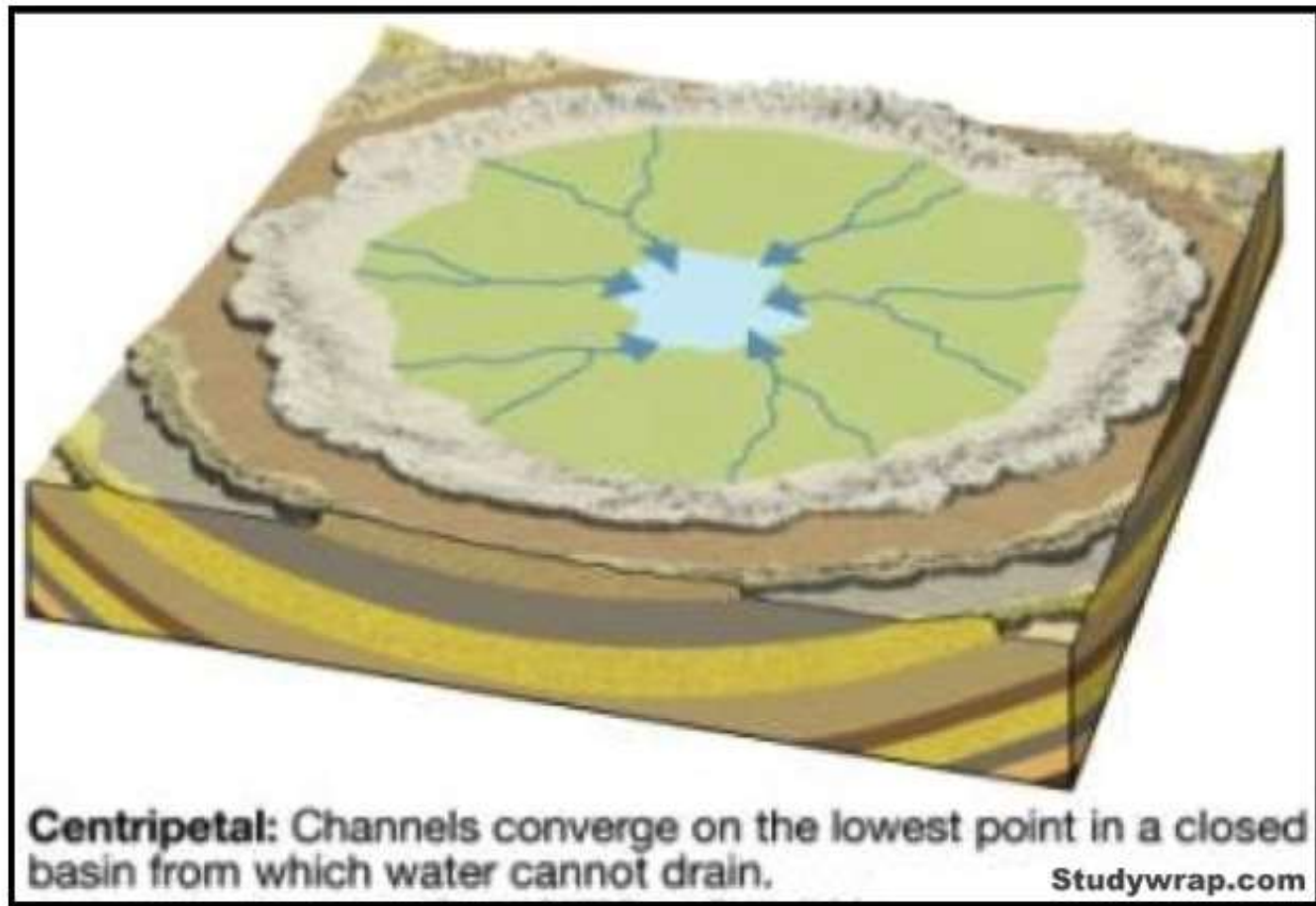


Parallel drainage pattern develops where there is a strong regional dip (slope).

<https://studywrap.com/drainage-system-types-of-drainage-patterns/>

Drainage network patterns

Centripetal drainage pattern (**Merkeze doğru, merkezci**)



In a low lying basin the streams converge from all sides.

<https://studywrap.com/drainage-system-types-of-drainage-patterns/>

Drainage network patterns

Deranged drainage pattern (**bozuk, dengesiz**)



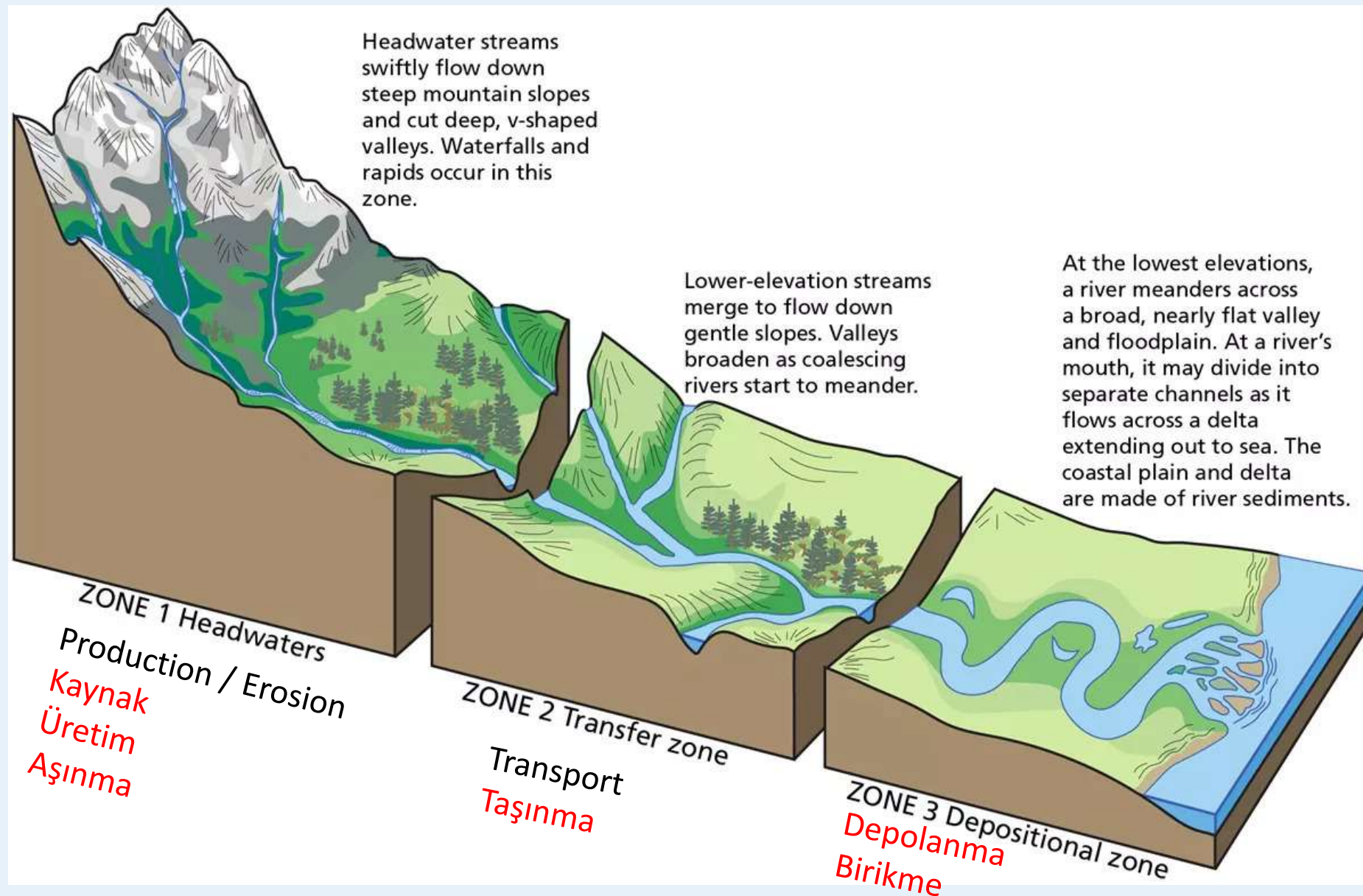
Deranged drainage

Studywrap.com

<https://studywrap.com/drainage-system-types-of-drainage-patterns/>

Fluvial-River System

Fluvial System Zones



The fluvial system, by Trista L. Thornberry-Ehrlich of Colorado State University

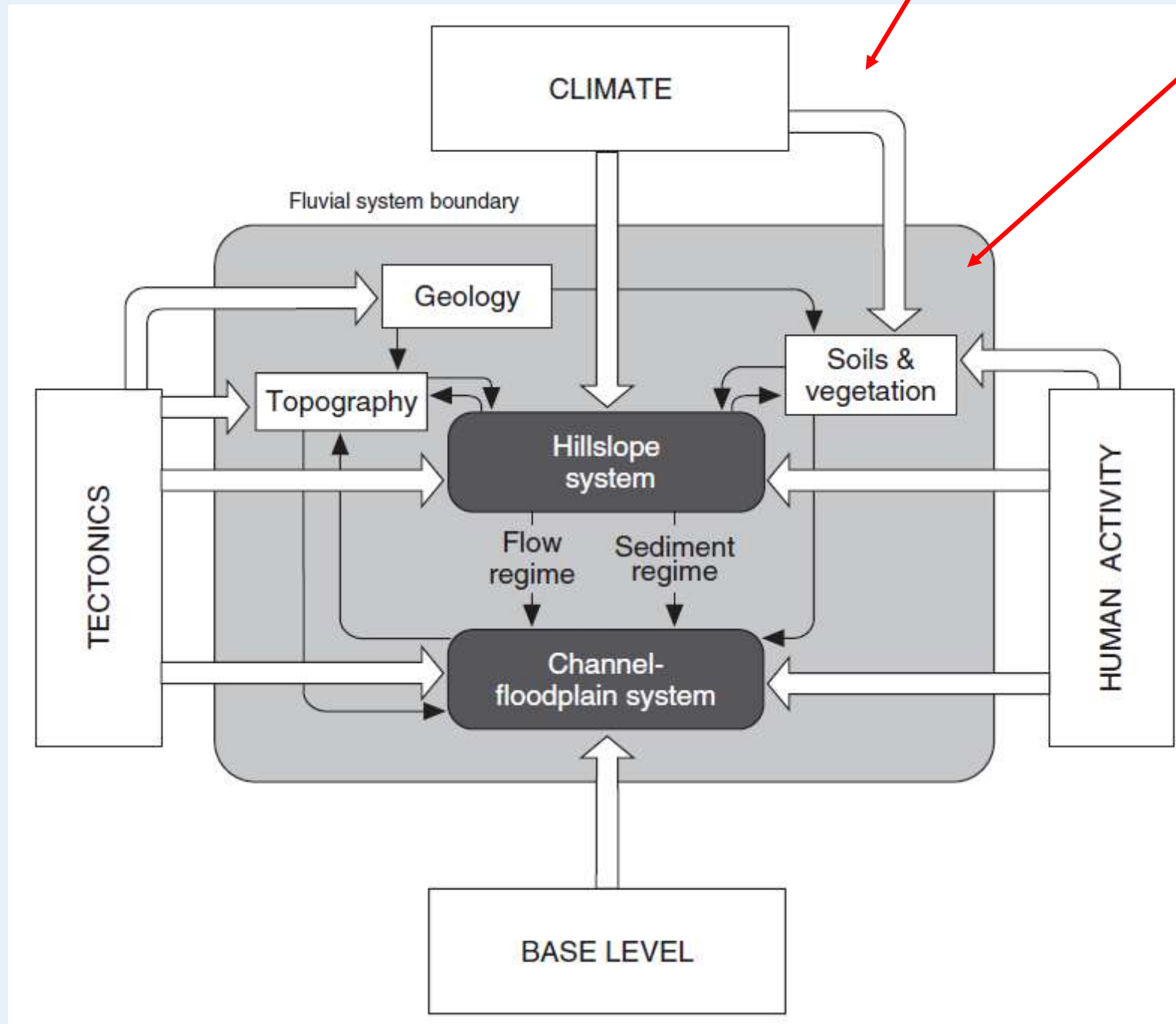
<https://www.nps.gov/subjects/geology/fluvial-landforms.htm>

Fluvial-River System

Fluvial System Variables

External variables: climatic, tectonic, eustatic

Internal variables: geomorphic



- Drainage density
- Hillslope angle
- Soil type
- Flow discharge
- Sediment yield
- Channel pattern
- Channel depth